

County of San Diego
Revised: March 12, 2002
Reviewed: Spring 2003

JUNIOR PUBLIC HEALTH MICROBIOLOGIST
PUBLIC HEALTH MICROBIOLOGIST
SENIOR PUBLIC HEALTH MICROBIOLOGIST

Class No. 004320
Class No. 004346
Class No. 004353

DEFINITION:

To perform microbiological tests on specimens from human, environmental and food sources; and to perform related work.

DISTINGUISHING CHARACTERISTICS:

Positions in this class series are allocated only to the Public Health Division of the Health and Human Services Agency (HHS), Public Health Division.

Junior Public Health Microbiologist:

This is the entry-level class. Under the immediate supervision of a certified Public Health Microbiologist, this class receives training in performing microbiological tests. Incumbents in this class acquire work experience, knowledge and skills to take the State Department of Health Services, Public Health Microbiologist examination for certification.

Public Health Microbiologist:

This is the journey-level class. Under general supervision, this class is responsible for conducting a wide variety of microbiological tests on specimens from human, environmental and food sources. Incumbents in this class are fully certified as Public Health Microbiologists.

Senior Public Health Microbiologist:

This is the lead-level class. Under general direction, this class provides technical guidance, leadership and training to lower level microbiologists and laboratory staff. Incumbents in this class are fully certified as Public Health Microbiologists.

EXAMPLES OF DUTIES:

Junior Public Health Microbiologist (Receives training in the following duties):

Performs laboratory work involved in conducting bacteriology, serology, parasitology, mycology, virology, and other tests and analyses of specimens to determine the presence of disease; isolates and/or identifies organisms and interprets bacteriological data; conducts microscopic and biochemical examinations of spinal fluids and urine; conducts tests for food borne illnesses; conducts bacteriological examinations of water, food products; operates laboratory equipment including but not limited to pH meters, centrifuges, incubators, microscopes, micro titer equipment, and spectrophotometers; maintains logs, records and worksheets; enters data into computer; and maintains the cleanliness and orderliness of laboratory work area and equipment.

Public Health Microbiologist:

Performs laboratory work involved in conducting bacteriology, serology, parasitology, mycology, virology, and other tests and analyses of specimens to determine presence of disease; isolates and/or identifies organisms and interprets bacteriological data; conducts microscopic and biochemical examinations of spinal fluids and urine; conducts tests for food borne illnesses; conducts bacteriological examinations of water, food products; analyzes and interprets test data and prepares reports; consults with physicians, communicable disease investigators, epidemiologists, environmental health personnel, and other staff members regarding test results; operates laboratory equipment including but not limited to pH meters, centrifuges, incubators, microscopes, micro titer equipment, and spectrophotometers; maintains logs, records, and worksheets and prepares correspondence; enters data into computer; maintains work area and equipment; and may assist lower level laboratory personnel in performing procedures, and may assist Senior Public Health Microbiologists in training Junior Public Health Microbiologists and other laboratory staff.

Senior Public Health Microbiologist:

In addition to all of the duties listed above: trains and supervises the work of subordinate microbiologists and laboratory staff; performs the more complex virological and microbiological testing; writes procedure manuals; assists in developing testing and quality control procedures; monitors work flow and reviews test result reports; and presents oral reports and poster sessions at scientific meetings.

MINIMUM QUALIFICATIONS:

Knowledge Level: T = Thorough; G = General; -- = Not Applicable

Classification Level: I = Junior Public Health Microbiologist
 II = Public Health Microbiologist
 III = Senior Public Health Microbiologist

Knowledge of:

| <u>I</u> | <u>II</u> | <u>III</u> | |
|-----------------|------------------|-------------------|---|
| G | T | T | Microbiology principles and theory including bacteriology, virology, mycology, serology and parasitology. |
| G | T | T | Methods of isolating and identifying microorganisms from human, environmental and food sources. |
| G | T | T | Methods and procedures for identifying antigens and antibodies in body fluids. |
| G | T | T | Laboratory equipment operation and care. |
| G | T | T | Common communicable diseases including causes, transmission and control methods. |
| G | T | T | Regulations related to public health and safety, including familiarity with county and state procedures. |
| G | T | T | Information sources in microbiology. |
| -- | G | T | Quality control techniques for laboratory tests. |
| -- | -- | G | Supervision and training methods and techniques. |

Skills and Abilities to:

The following apply to all classes:

- Perform laboratory tests and procedures accurately and completely.
- Record, analyze and interpret test results.
- Read, understand, and interpret technical information and regulations.

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- Operate and make minor adjustments and calibrations to laboratory equipment such as pH meters, centrifuges, incubators, microscopes, micro titer equipment and spectrophotometer.
- Input and retrieve data using computer.
- Maintain logs and worksheets.
- Communicate effectively orally and in writing.

EDUCATION/EXPERIENCE:

Education, training or experience, which clearly demonstrate possession of the knowledge, skills and abilities stated above. Examples of qualifying education/experience are:

Junior Public Health Microbiologist:

A bachelor's degree from an accredited college or university with a major in medical or public health bacteriology, microbiology, or another closely related field. **Note:** Incumbents in this position must pass the next available California State Public Health Microbiologist Certification exam immediately after completing the designated training period or will be terminated from employment in this class.

Public Health Microbiologist:

A Public Health Microbiologist certificate issued by the State of California, Department of Health Services, Laboratory Field Services Office.

Senior Public Health Microbiologist:

A Public Health Microbiologist certificate issued by the State of California, Department of Health Services, Laboratory Field Services Office, AND,

1. Three (3) years, within the last five (5) years, of experience performing highly complex tests in a public health laboratory, or in compliance with the Clinical Laboratory Improvement Amendment (CLIA, 1992), in a CLIA-certified or CLIA-exempt laboratory; OR,
2. Two (2) years of experience as a certified Public Health Microbiologist in an approved public health laboratory in California.

Note: Additional years of experience as described above may substitute for the education requirement on a year-for-year basis; OR, completion of appropriate course work from an accredited college or university may substitute for the experience requirement on a year-for-year basis.

SPECIAL NOTES, LICENSES, OR REQUIREMENTS:

Certification (Public Health Microbiologist and Senior Public Health Microbiologist):

Current certification as a Public Health Microbiologist issued by the State of California, Department of Health Services, Laboratory Field Services Section. Incumbents must possess a permanent California Public Health Microbiologist certificate in order to complete probation. The possession of a California Clinical Laboratory Scientist license is highly desirable.

License:

A valid California Class C driver's license or the ability to arrange necessary transportation for field travel is required at time of appointment and which must be maintained throughout employment in this class. Employees in this class may be required to use their personal vehicle.

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Working Conditions:

Required to work with pathogenic organisms, acids, caustic and volatile chemicals. Must be willing to be immunized against infectious agents encountered in the laboratory including Hepatitis B and rabies, and to have pertinent skin tests, X-rays and blood tests.